

What is claimed is:

1. A carding machine having:

a roller which has a direction of rotation;

5 a carding segment opposing said roller and comprising
a carrier and first and second carding elements arranged
one behind the other in the direction of rotation of the
roller;

wherein:

10 said first carding element has a first carding
surface;

said second carding element has a second carding
surface; and

at least one of said carding surfaces is inclined with
respect to a tangent at the opposed roller surface.

15 2. A carding machine according to claim 1, in which the
carding elements are arranged in stationary manner.

3. A carding machine according to claim 1, in which said
roller is the carding cylinder of the carding machine.

20 4. A carding machine according to claim 1, in which the
carding elements are non-movable.

5. A carding machine according to claim 1, in which the
carding elements are movable.

6. A carding machine according to claim 1, in which the first and second carding elements are arranged to be individually movable in the carrier.

7. A carding machine according to claim 1, in which the carding elements are each rotatable about an axis parallel to the roller.

8. A carding machine according to claim 6, in which an adjusting device for the rotation is provided.

9. A carding machine according to claim 6, in which each carding element is arranged to be rotatable in the carrier with two degrees of freedom.

10. A carding machine according to claim 1, in which said first and second elements are each inclined relative to respective tangents at the opposed roller surface, the angle of inclination being substantially the same.

11. A carding machine according to claim 1, in which said first and second elements are each inclined to respective tangents at the opposed roller surface, the angles of inclination being different.

12. A carding machine according to claim 10, in which the or each angle of inclination is acute.

13. A carding machine according to claim 1, in which said first and second elements are each inclined relative to respective tangents at the opposed roller surface, at least one of the elements having an angle of inclination that is obtuse.

14. A carding machine according to claim 1, in which an angle of inclination can be changed in operation and out of operation of the carding machine.

15. A carding machine according to claim 1, in which the angle of inclination for two carding elements can be changed simultaneously, the angular position settings of the carding elements being coupled to one another.

16. A carding machine according to claim 15, in which, when the angles are changed, the transmission ratio (angular change) of each carding element is different.

17. A carding machine according to claim 15, comprising a central adjusting device for changing the angles of all the carding elements.

18. A carding machine according to claim 1, in which the angle of inclination is arranged to be changeable starting from a tangential position of the carding surface of the carding element (zero point).

19. A carding machine according to claim 1, in which the carding nip becomes smaller at the first carding element and larger at the second carding element, seen in the direction of rotation of the cylinder.

5 20. A carding machine according to claim 1, in which the first and second elements form with the roller first and second carding nips, the spacings at the narrowest locations of each of the first and second carding nips being the same or substantially the same.

10 21. A carding machine according to claim 1, in which two or more said carding elements are arranged to be adjusted in stepped manner from carding segment to carding segment, for example to be changed centrally by 0.5° .

15 22. A carding machine according to claim 1, in which the position of the carding elements can be detected.

23. A carding machine according to claim 1, in which at least one device comprising a said carding segment is arranged in one or more zones selected from the preliminary carding zone between a licker-in and the rear card-top-deflecting roller of the revolving card top, the after-carding zone between a doffer and a front card-top-deflecting roller of the revolving card top, and an

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underneath carding zone on said carding cylinder between a doffer and a licker-in of said carding machine.

24. A carding machine according to claim 23, comprising two or more said carding segments.

5 25. A carding machine according to any one of claims 1, in which the roller is a cylinder and only stationary card top elements are associated with the cylinder of the carding machine, a plurality of said carding segments being provided at the cylinder.

10 26. A carding machine wherein at least one stationary carding element segment comprising a carrier and a carding element is associated with a roller, for example a cylinder, and wherein the clothing of the carding element and the roller clothing are located opposite one another,
15 wherein the carding surface of the carding element forms an angle to a tangent at the clothing of the roller, and the carding element is arranged in stationary manner with respect to the roller.

27. A carding machine according to claim 26, in which a
20 plurality of carding segments are arranged behind one another in the work direction.

28. A carding machine having a roller which has a direction of rotation, and a carding segment, the carding

segment having a carrier and at least first and second carding elements which are arranged one behind the other in the direction of rotation of the roller and in opposing relationship to the roller, wherein said first and second
5 carding elements each have a carding surface, at least one of said carding surfaces is inclined with respect to a tangent at the opposed roller surface, and said first and second carding elements are arranged to be stationary relative to the roller in operation.

10 29. Apparatus at a carding machine, wherein at least one stationary carding segment comprising a carrier together with at least two carding elements is associated with a roller, for example a cylinder, which carding elements are arranged behind one another in the direction of rotation of
15 the roller, and wherein the clothings of the carding elements and the roller clothing are located opposite one another, wherein the carding surface of at least one carding element forms an angle with a respective tangent at the clothing of the roller, and the carding elements are
20 arranged in stationary manner with respect to the roller.